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8 UNITED STATES
9 ENVIRONMENTAL PROTECTION AGENCY
REGION 9

10 In the Matter of) CONSENT ORDER
11 GOODYEAR AEROSPACE CORPORATION,)
12 (LITCHFIELD PARK, ARIZONA),) Docket No. 86-03
13 Respondent.)
14 Proceeding Under Section)
15 106(a) of the Comprehensive)
16 Environmental Response,)
Compensation and Liability Act)
of 1980 (42 U.S. C. §9606(a)))

17 JURISDICTION

18 The following Order is issued on this date to Goodyear
19 Aerospace Corporation, Arizona Division, Litchfield Park, Arizona
20 (hereinafter referred to as Respondent), pursuant to the authority
21 vested in the President of the United States by §106(a) of the
22 Comprehensive Environmental Response, Compensation, and Liability
23 Act of 1980 (CERCLA), 42 U.S.C. §9601 et seq., delegated to the
24 Administrator of the United States Environmental Protection
25 Agency (EPA) by Executive Order Number 12316 (August 20, 1981,
26 46 FR 42237), and redelegated to the Director, Toxics and Waste
27 Management Division, EPA, Region 9. Notice of the issuance of
28 this Order has been given to the State of Arizona.

FINDINGS OF FACT

1. Respondent is current owner and operator of a facility located at 101 S. Litchfield Road, Litchfield Park, Arizona (hereinafter "facility").
2. Respondent has engaged in the use, generation, treatment, storage and disposal of hazardous substances and hazardous wastes as defined by CERCLA and RCRA.
3. Respondent has used significant quantities of halogenated and non-halogenated solvents including, but not limited to, trichloroethylene (hereinafter referred to as TCE) since it began operations in 1942.
4. On August 27, 1982, Respondent submitted information to EPA in response to EPA's request for information pursuant to Section 3007(a) of RCRA, 42 U.S.C. §6927, and Section 104(e) of CERCLA, 42 U.S.C. §9604(e). Respondent stated the following:
 - A. In 1971, an unknown quantity of solvents was disposed of in one of the sludge drying beds. Respondent said that disposal of TCE in the drying beds was unlikely.
 - B. Between the early 1970's and 1980, Respondent disposed of chromium-bearing sludge from the chromium treatment plant in drying beds located on the facility.
 - C. TCE was used extensively as a degreaser before 1974. After TCE use was discontinued in 1974, 1,1,1-trichloroethane (TCA) was substituted for TCE.
 - D. Twenty-three 55-gallon drums of waste TCE were stored at Respondent's facility from 1973 to August 5, 1980, at which time the drums were removed from the facility by

Southwest Solvents.

E. Waste storage at the Respondent's facility consists of tanks containing chromium sludge from their chromium treatment facility and small quantities of nickel, lead, tin and copper. Other hazardous wastes stored at the facility include chlorinated solvents.

5. Respondent was unable to submit documents concerning its waste disposal practices for the first 25 years of its operation although such information was requested pursuant to Section 3007 of RCRA in the letter sent to Respondent on July 23, 1982.

6. Respondent's wells #1, #2, #3, and #4 are located on Respondent's facility. Between February 1979 and January 24, 1984, EPA, the Arizona Department of Health Services, and Respondent sampled Respondent's wells #2, #3, and #4. The results of those sampling efforts are listed below:

Goodyear Aerospace Corporation Well #2

Date Sampled	Organization Sampling	Contaminant	Concentration (in ppb)
12/9/81	ADHS	TCE	2.1
3/24/82	GAC	TCE	3.6
9/2/82	EPA	TCE	7.3
10/27/82	GAC	TCE	3.9
5/9/83	GAC	TCE	9.8
6/15/83	GAC	TCE	2.7
12/9/81	GAC	Chromium	210.
1/5/82	GAC	Chromium	130.
3/31/82	GAC	Chromium	45.
9/2/82	EPA	Chromium	30.
10/14/82	GAC	Chromium	36.
6/28/83	ADHS	Chromium	51.

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Goodyear Aerospace Corporation Well #3

<u>Date Sampled</u>	<u>Organization Sampling</u>	<u>Contaminant</u>	<u>Concentration (in ppb)</u>
3/23/82	ADHS	TCE	33.1
3/24/82	ADHS	TCE	49.9
7/15/82	GAC	TCE	14.7
7/30/82	GAC	TCE	4.63
8/6/82	GAC	TCE	4.30
9/2/83	EPA	TCE	9.5
10/27/82	GAC	TCE	9.3
6/15/83	GAC	TCE	14.0
6/15/83	GAC	TCE	7.3
9/2/82	EPA	Chromium	50.
10/14/82	GAC	Chromium	64.
6/28/83	ADHS	Chromium	81.

Goodyear Aerospace Corporation Well #4

<u>Date Sampled</u>	<u>Organization Sampling</u>	<u>Contaminant</u>	<u>Concentration (in ppb)</u>
12/9/81	ADHS	TCE	2.6
6/15/82	ADHS	TCE	6.6
6/15/83	GAC	TCE	12.0
6/15/83	GAC	TCE	6.6
7/15/83	GAC	TCE	5.8
1/16/84	GAC	TCE	5.9
1/19/84	GAC	TCE	6.19
1/24/84	GAC	TCE	6.46
2/79	GAC	Chromium	15.
3/82	GAC	Chromium	18.
9/2/83	GAC	Chromium	10.
10/14/82	GAC	Chromium	12.
6/28/83	ADHS	Chromium	16.

7. Between November, 1981 and April, 1982, the Arizona Department of Health Services sampled the Phoenix-Litchfield Airport well #3, located immediately adjacent to Respondent's facility. The sampling dates and the concentrations of contaminants found in the samples are listed below:

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Phoenix-Litchfield Airport Well #3

<u>Date Sampled</u>	<u>Contaminant</u>	<u>Concentration (in ppb)</u>
11/24/81	TCE	47.3
12/81	TCE	116.
03/17/82	TCE	576.9
03/17/82	1,1-dichloroethylene	4.76
03/17/82	trans 1,2-dichloroethylene	21.3
03/17/82	chloroform	4.4
03/17/82	1,1 dichloroethane	21.4
03/17/82	carbon tetrachloride	4.22
03/17/82	tetrachloroethylene	5.
04/20/82	TCE	461.1
04/20/82	1,1 dichloroethylene	0.49
04/20/82	1,1 dichloroethane	0.48
04/20/82	trans 1,2-dichloroethylene	5.47
04/20/82	chloroform	5.0

8. On February 16 and 17, 1984, EPA inspected Respondent's facility pursuant to an Administrative Search Warrant from the U.S. District Court. An internal GAC memo dated January 22, 1973 from T. W. Heim to G. R. Phillips regarding solvent disposal was reviewed by EPA and is incorporated by reference.
9. During 1983 and 1984, the Arizona Department of Health Services and Respondent sampled water from Respondent's storm drains and NPDES outfalls. The sample results are listed below:

Goodyear Aerospace NPDES Outfall 001

<u>Date Sampled</u>	<u>Organization Sampling</u>	<u>Contaminant</u>	<u>Concentration (in ppb)</u>
6/83	GAC	TCE	169.
6/83	GAC	TCE	47.
5/18/83	ADHS	TCE	3.0
6/15/83	ADHS	TCE	5.1
12/22/83	GAC	TCE	51.
12/22/83	GAC	TCE	45.
1/12/84*	GAC	TCE	880.
1/12/84*	GAC	TCE	43.0
1/12/84*	GAC	TCE	15.6
1/19/84*	GAC	TCE	36.1

1	1/19/84*	GAC	TCE	5.22
	1/19/84*	GAC	TCE	226.
2	1/19/84*	GAC	TCE	5.61
	1/24/84*	GAC	TCE	520.
3	2/09/84*	GAC	TCE	34.8
	2/09/84*	GAC	TCE	127.
4	2/09/84*	GAC	TCE	63.9

5 * Sample taken immediately upstream of the designated NPDES
6 sampling point.

7 Goodyear Aerospace NPDES Outfall 002

8	Date Sampled	Organization Sampling	Contaminant	Concentration (in ppb)
9	5/18/83	ADHS	TCE	3.1
10	6/15/83	ADHS	TCE	0.9

- 11 10. During their February 16 and 17, 1984 inspection, EPA inspec-
12 tors located two surface impoundments in the southeast
13 quadrant of Respondent's facility. The irregularly shaped
14 impoundments are approximately six feet in diameter. The
15 depth is unknown. Respondent's representatives stated that
16 the impoundments are used for disposing of polishing compound
17 waste from its plastics shop. At the present time, there are
18 only solid materials in these pits.
- 19 11. During their February 16 and 17, 1984 inspection, EPA
20 officials spoke with Mr. Randall Clark, Respondent's Environ-
21 mental Coordinator. Mr. Clark stated he believes that the
22 TCE found in Respondent's NPDES discharge was due to TCE-laden
23 sediment in the drain pipes which convey liquid to the NPDES
24 Outfalls.
- 25 12. Chromium and volatile organic compounds were detected in soil
26 borings located at the facility. These samples were taken
27 by the Respondent and reported to EPA in the Evaluation of
28

Soils and Shallow Groundwater Contamination Report dated May 1985. Soil boring 16B-1 contained TCE throughout the entire soil column:

<u>Boring</u>	<u>Depth of Sample(ft)</u>	<u>TCE (ppb)</u>
16B-1-1	0-1.5	113
16B-1-2	5	86
16B-1-3	10	115

<u>Boring</u>	<u>Depth of Sample(ft)</u>	<u>TCE (ppb)</u>
16B-1-4	15	87
16B-1-5	20	76
16B-1-6	25	68
16B-1-7	30	150
16B-1-8	50	91

Chromium was also found in soil boring 16B-2 up to a concentration of 3400 ppm and in soil boring 16B-3 up to a concentration of 750 ppm. By comparison, the background level of chromium is approximately 30 ppm.

13. Chromium and volatile organic compounds were found in ground water samples underlying the facility. These results were stated in the Evaluation of Soil and Shallow Groundwater Contamination report. Partial shallow ground water results are as follows:

<u>Boring</u>	<u>TCE(ppb)</u>	<u>1,1-DCE(ppb)</u>	<u>Benzene(ppb)</u>	<u>Chromium(ppb)</u>
16GB-1	NA	NA	NA	1600
16GB-2	51	ND	ND	710
16GB-4	687	26	ND	690
16GB-5	221	791	174	580
16GB-6	78	31		250

NA-not analyzed due to loss of samples during shipping
ND-below detection limit

14. Halogenated and non-halogenated spent solvents, including

1 TCE, and chromium-bearing sludge are hazardous wastes as
2 defined by §1004(5) of RCRA, 42 U.S.C. §6903(5) and are
3 listed as hazardous wastes at 40 CFR §261.31. Chromium-
4 bearing sludge, TCE, and spent halogenated and non-halo-
5 genated solvents are also hazardous substances as defined by
6 §101(14) of the Comprehensive Environmental Response,
7 Compensation and Liability Act of 1980 (CERCLA), 42 U.S.C.
8 §9601(14).

9 15. The ground water wells at the airport and the well at the
10 GAC property are found to be contaminated. These wells are
11 completed in the aquifer system which is a source of
12 drinking water in the Goodyear-Avondale area.

13 16. The Respondent has already performed tasks in accordance with
14 a previous EPA Administrative Order, Docket 84-02.

15 DETERMINATION
16

17 Based upon the foregoing Findings of Fact, the Director,
18 Toxics and Waste Management Division, EPA, Region 9 has determined
19 that, due to past releases of hazardous substances and hazardous
20 wastes from Respondent's facility, there may be an imminent and
21 substantial endangerment to the public health or welfare or the
22 environment, and that such releases may present a substantial
23 hazard to human health or the environment.

24 EPA has further determined that Respondent is a current
25 owner/operator responsible for conducting the actions ordered
26 herein, which are necessary to ascertain the nature and extent
27 of the hazard and to protect public health and the environment.

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ORDER

Based upon the foregoing Determinations and Findings of Fact, Respondent is hereby ordered and directed, pursuant to §106(a) of CERCLA, 42 U.S.C. §9601 et seq., prepare and submit to EPA for approval, within 30 days of the effective date of this Order, a written proposal, including a schedule of work (Proposal).

A. The Proposal shall include the following tasks:

1. All work necessary to develop specifications and contract documents for drilling, sampling, water quality testing, and assistance in drilling site acquisition. All specifications shall be submitted to EPA for approval before field work is conducted. Specifications for spinner-logging of wells will be provided to GAC by EPA;
2. Install shallow ground water monitoring wells (approximately 160 feet deep) to determine the extent of contamination in the shallow zone of the Upper Alluvial Unit (UAU). An approximate location for these wells is indicated in Figure 1.
3. Installation of an aquifer test well. The location and construction details of this twelve-inch well will be discussed with EPA;
4. The following wells shall be TV-logged, spinner-logged, and sampled at depth discrete intervals: all facility production wells, TOG #1 (b-1-1 10ccd), TOG #5 (b-1-1 9ddb), and all airport production wells;
5. Water quality sampling will be performed according to the protocols set forth in the QAPP and previous sampling plans. All wells at the facility shall be sampled for

priority pollutant compounds, anions and cations, chemical oxygen demand, and pesticides within 30 days of receipt of this Order and three more times on a quarterly basis thereafter. The analysis of the first round of samples will include the above mentioned compounds; the three subsequent samples will be analyzed for compounds that will be determined by EPA after the first round of sampling. EPA will contact GAC to coordinate these sampling efforts. In addition, GAC will sample all newly GAC installed shallow zone monitoring wells upon completion of the wells. These new monitoring wells will subsequently be included in the quarterly sampling schedule.

6. An evaluation of options for handling treated or extracted ground water must be conducted. Any hazardous wastes are to be disposed of per state and federal requirements;
7. Perform all tasks described in the Goodyear Aerospace Proposal dated December 3, 1985, as amended by a letter from by Jeff Rosenbloom of EPA, dated December 19, 1985.
8. Presentation of a schedule for the tasks to be conducted during this investigation;
9. Following the completion of the field investigation and after receiving the chemical data, the data will be summarized in a report that is to be submitted to EPA within six months from receipt of EPA approval of the Proposal.
 - A. The Proposal ordered in this order must be submitted by Respondent to Jeff Rosenbloom, Environmental Protection Agency, at the address listed below, within thirty days of the date of this Order. The Proposal

1 shall be subject to review, modification and approval
2 by EPA.

3 EPA will perform the following tasks in conjunction with Goodyear
4 Aerospace Corporation's activities:

- 5 1. Install shallow ground water monitoring wells at locations
6 indicated in Figure 1. These wells will be installed after
7 the data from the shallow monitoring wells installed by GAC
8 is evaluated;
- 9 2. Install a protection well between the facility and the Town
10 of Goodyear Well #1;
- 11 3. Install wells in Subunits B and C of the Upper Alluvial
12 Unit after data from the shallow wells are evaluated. The
13 approximate locations of these wells are shown in Figure 1;
- 14 4. Install wells in the Middle Fine Grain Unit after data
15 from from the wells installed in Subunits B and C are
16 evaluated. The approximate locations of these wells are
17 shown in Figure 1;
- 18 5. Continue groundwater modeling work in conjunction with
19 the Arizona Department of Water Resources;
- 20 6. Sample designated wells in the study area in order to up-
21 date the water quality data base;
- 22 7. Continue to perform monthly water level monitoring;
- 23 8. Conduct overview of work performed by GAC. This task will
24 include field oversight and review of work products;
- 25 9. Screen alternatives for the handling of treated or ex-
26 tracted ground water.

27 EPA reserves the right to issue any supplemental orders that are
28 deemed necessary to determine the vertical and horizontal extent

1 of contamination.

2 All tasks stated in this Order shall be subject to the
3 following guidelines:

- 4 1. It is the responsibility of Respondent to obtain access
5 to and use of any off-site areas. Respondent shall be
6 responsible for any claims arising from the activities
7 conducted by Respondent or its representatives or con-
8 sultants on third-party property in connection with this
9 Order in accordance with CERCLA and ^{the laws of} the State of Arizona. *RS*
10 Respondent will provide access to the site for EPA
11 employees, contractors, or consultants at all reasonable
12 times and will permit such persons to be present and
13 move freely in the area where any work is being conducted
14 pursuant to this Order.
- 15 2. Respondent shall provide EPA with copies of all charts,
16 maps, letters, memoranda, invoices, shipping manifests
17 of other records or documents relevant to the performance
18 of work under this Order as requested or which are
19 required by to be provided to EPA by RCRA, CERCLA, or
20 any other applicable law.
- 21 3. Respondent shall submit to EPA monthly reports describing
22 activities performed during that month pursuant to this
23 Order, including, but not limited to, a description of
24 any well drilling, soil boring, sample collection,
25 sample analysis, water level measurement, and engineering
26 or geologic analysis. These monthly reports are due at
27 the end of the next month after the conclusion of a
28 previous month's activities. *RS*

- 1 4. Notwithstanding compliance with the terms of this Consent
2 Order, including the completion of an EPA approved
3 Remedial Investigation and Feasibility Study, the Respon-
4 dent is not released from liability, if any, for any
5 actions beyond the terms of this Consent Order taken by
6 EPA respecting the facility. EPA reserves the right to
7 take any enforcement action pursuant to CERCLA and/or
8 any available legal authority, including the right to
9 damages for any violation of law or this Consent Order.
- 10 5. Respondent consents to jurisdiction for purposes of this
11 order but neither the Respondent's consent, nor anything
12 in this Consent Order, shall constitute an admission by
13 the Respondent of legal or factual matters set forth
14 herein, which matters the Respondent specifically denies.
15 By signing this Order, the Respondent does not admit,
16 accept, or intend to acknowledge any liability or fault
17 with respect to the conditions at or arising from the
18 Phoenix/Litchfield Airport area (site) or with respect
19 to any matter arising out of or relating to the conditions
20 at or arising from the site, and Respondent specifically
21 maintains that other parties are responsible for these
22 conditions.
- 23 6. The Respondent and EPA expressly reserve all rights and
24 defenses that they may have, including EPA's right both
25 to disapprove of work performed by the Respondent and to
26 request that the Respondent perform ^{Respondent's} tasks as provided ¹⁸
27 in this Consent Order. In the event that the Respondent
28 declines to perform such tasks, EPA reserves the right

to undertake any remedial investigation and feasibility study work. EPA reserves the right to undertake removal actions and remedial actions at any time. EPA reserves the right to seek reimbursement from the Respondent thereafter for such costs incurred by the United States.

7. Respondent reserves the right to credit or offset against its responsibility for costs of remedial investigations, feasibility study, removal, or remedial actions the costs of performing the work ordered by this consent order and the administrative costs for Phase I.

8. Respondent and EPA recognize that the Department of Defense is a potential responsible party in the Phoenix Litchfield Airport Area and may be required under the Memorandum of Understanding dated August 12, 1983 and styled, "Memorandum of Understanding Between the Department of Defense and the Environmental Protection Agency for the Implementation of P.L. 96-510 the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)" to contribute its proportional share of the costs of the Remedial Investigation, the Feasibility Study, and the Removal or Remedial Action.

9. All actions required to be taken pursuant to this Consent Order shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations unless an exemption from such requirements is specifically provided in this Consent Order.

10. EPA recognizes that the Department of Defense (DOD) has, as a former owner/operator of the site, a responsibility

1 for a portion of the costs of the remedial investigation,
2 the feasibility study, and remedial actions at the site.
3 Saving and excepting this responsibility of the DOD, the
4 Respondent agrees to indemnify and save and hold the
5 United States Government, its agencies, departments,
6 agents, employees, and contractors, harmless from any
7 and all claims or causes of action arising from or on
8 account of acts or omissions of the Respondent, its
9 ~~officers,~~ *NS* employees, receivers, trustees, agents, or
10 assigns, in carrying out its activities pursuant to this
11 Consent Order. EPA is not a party in any contract
12 specifically involving the Respondent at the site.

13 11. This Consent Order shall apply to and be binding upon the
14 Respondent and EPA, their agents, successors, and assigns
15 and upon all persons, contractors, and consultants acting
16 under or for either the Respondent or EPA or both. No
17 change in ownership or corporate or partnership status
18 relating to the facility will in any way alter the status
19 of the Respondent or in any way alter the Respondent's
20 responsibility under this Consent Order. The Respondent
21 will remain the Respondent under this Consent Order and
22 will be responsible for carrying out all activities
23 required of the Respondent under this Consent Order.

24 12. EPA has notified the State of Arizona pursuant to the
25 requirements of Section 106 (a) of CERCLA.

26 EFFECTIVE DATE -- OPPORTUNITY TO CONFER

27 Except as otherwise provided below, this Order is effective
28 upon the date of approval by EPA. All times for performance of

1 response activities shall be calculated from that date.

2 Under the provisions of CERCLA, Respondent may request a
3 conference to be held within seven (7) calendar days after receipt
4 of this Order to discuss this Order, its applicability, the
5 correctness of any factual determinations upon which the Order is
6 based, the appropriateness of any action which Respondent is
7 ordered hereby to take, and any other relevant and material
8 issue. If Respondent requests a conference, this Order will not
9 become effective until the expiration of the said seven-day
10 period.

11 At any conference held pursuant to Respondent's request,
12 Respondent may appear in person and by attorney or other represen-
13 tatives for the purpose of presenting any objections, defenses or
14 contentions which Respondent may have regarding this Order.

15 STIPULATED PENALTIES FOR NON-COMPLIANCE
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17 You are advised that willful violation or failure or refusal
18 to comply with this Order, or any portion hereof, may subject you
19 to a civil penalty of not more than \$5,000.00 for each day in
20 which violation occurs or such failure to comply continues in
21 accordance with §106(b) of CERCLA. Failure to comply with this
22 Order, or any portion hereof, without sufficient cause, may also
23 subject you to liability for punitive damages in the amount of
24 three times the total of all costs incurred by the government as
25 a result of your failure to take proper action in accordance with
26 §107(c)(3) of CERCLA.

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1 It is so ordered on this 19th day of March, 1986.

2 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

3
4 BY: Harry Seraydarian
5 HARRY SERAYDARIAN
6 DIRECTOR, TOXICS AND WASTE MANAGEMENT DIVISION

7 BY: Robert W. Clark
8 ROBERT CLARK, President
9 GOODYEAR AEROSPACE CORPORATION

10 ATTEST: Burt B. B. B.
11 Secretary

12 Contact person:

13 Jeff Rosenbloom (T-4-2)
14 Environmental Protection Agency
15 215 Fremont Street
16 San Francisco, California 94105
17 Telephone: (415) 974-7513
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